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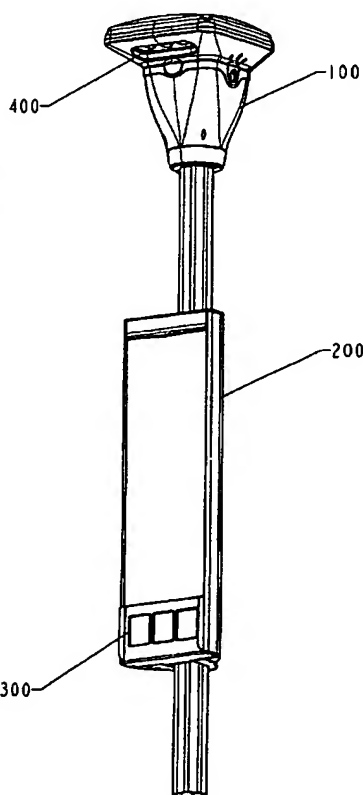
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[Continued on next page]

(54) Title: SOLAR-POWERED BUS STOP



(57) Abstract: A bus stop illuminating assembly (400) used in public transportation system comprises a solar-powered head assembly (100) for illuminating around said bus stop for security at night and signaling to a bus driver that passengers are waiting; an edge-lit bus schedule assembly (200) to give transportation information to passengers; a post (8) to secure said head assembly and said bus schedule assembly thereon, wherein necessary functions of said head assembly or said schedule assembly are selectively activated by said passengers, by means of a button assembly (300).



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# INTERNATIONAL SEARCH REPORT

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PCT/CA 03/01457

**A. CLASSIFICATION OF SUBJECT MATTER**  
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According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G09F F21S

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	EP 0 727 765 A (LANGMATZ LIC GMBH) 21 August 1996 (1996-08-21) column 2, line 20 -column 3, line 40	25  1,2, 5-20, 22-24
A	US 6 355 989 B1 (WESTCOTT SEAN G) 12 March 2002 (2002-03-12) cited in the application column 1, line 65 -column 2, line 66; claims 1-3; figure 1	1,3,4,9, 19,21
A	US 3 543 454 A (DANIN ALEX) 1 December 1970 (1970-12-01) column 4, line 1-16; figures 1,4	1,5,9, 19,20,22

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0727765	A	21-08-1996	DE 19510445 A1	29-08-1996
			DE 19600219 A1	02-10-1996
			AT 181442 T	15-07-1999
			DE 29623685 U1	20-05-1999
			DE 59602207 D1	22-07-1999
			EP 0727765 A1	21-08-1996
US 6355989	B1	12-03-2002	US 2002145540 A1	10-10-2002
US 3543454	A	01-12-1970	NONE	